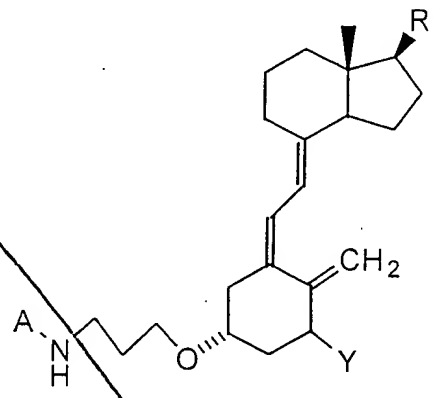
--14. Method of obtaining a vitamin D derivative of the formula:



wherein:

R represents a 25-hydroxy side-group of vitamin D_2 or of vitamin D_3;

Y represents hydrogen or hydroxy;

A represents a functional group, coupled via a spacer group, which can be bound by a protein with high affinity;

characterised by the steps;

a) cyanoethylation of the 3-hydroxy group of a vitamin D starting compound in a suitable solvent such as acetonitrile in the presence of potassium hydride and tertiary butanol;

b) addition of lithium hydride and transfer of the 25-hydroxy group into the lithium alcoholate and subsequent reduction of the nitrile group with lithium aluminium hydride; and

c) linking a spacer group together with a functional group A on the amino propylether side chain.

15. Method according to claim 14, wherein the functional group A is selected from biotin, digoxigenin, tyrosine, FITC substituted tyrosine, substituted amino acids, characteristic amino acids and peptide sequences, FITC, proteins and peptide groups, protein-A, protein-G and vitamin D derivatives.

16. Method according to claim 14, wherein the functional group A is 25-hydroxy vitamin D or 1α,25-dihydroxy vitamin D.

17. Method according to claim 14, wherein the functional vitamin D group is coupled in the 3β-position via an ether bridge with the spacer group.

18. Method according to claim 14, wherein step c) is effected with biotinyl-N-ε-amino caproyl-hydroxy-succinimide ester (LC-BHNS) or an activated biotinylation reagent.

19. Method according to claim 14, wherein the spacer group is an amino carboxylic acid radical, an amino undecanoic acid radical or an amino polyether radical.

20. Method of producing the 3-amino propyl-25-hydroxy- or 3-amino propyl-1α,25-dihydroxy vitamin D intermediate compound, characterised by the method steps a) and b) according to claim 14.

21. Method for the quantitative detection of 25-hydroxy- and 1α,25-dihydroxy vitamin D metabolite in a sample, characterised in that a vitamin D derivative is obtained with a method according to claim 14, and is

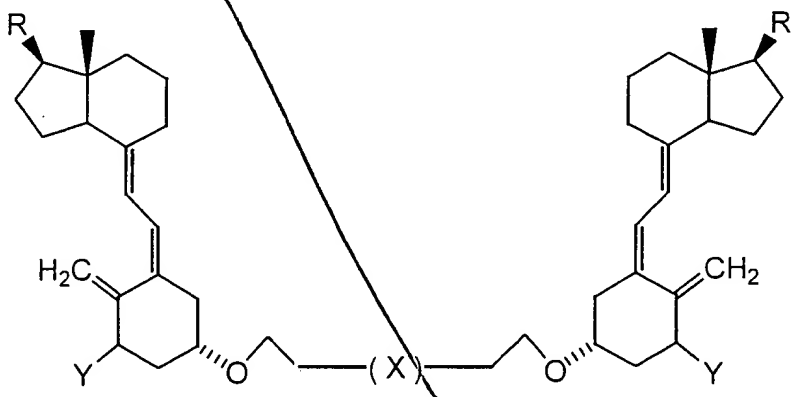
~~employed as a binding partner~~.

22. Method according to claim 21, wherein the method is a competitive immunoassay, selected from RIA, EIA/ELISA, LiA and FiA.

23. Method according to claim 21, wherein the method is a sandwich immunoassay, selected from IRMA, IEMA/EUA, ILMA (immunoluminescence assay) and IFMA (immunofluorescence assay).

~~24.~~ Reagent kit for the detection of 25-hydroxy- and 1α,25-dihydroxy vitamin D metabolites, characterised in that it contains a standardised quantity of solid or solution of a vitamin D-derivative which is manufactured in accordance with claims 14.

25. Vitamin D-derivative of the formula:



wherein:

R represents a 25-OH side group of vitamin D_2 or D_3;

Y represents hydrogen or hydroxy; and

X represents a substituted or non-substituted